



**GREEN
CLIMATE
FUND**

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23 June 2017

Implementation of the Initial Strategic Plan of the GCF: Update on country programmes and entity work programmes

Summary

The document provides an overview of progress on country programme briefs and entity work programmes.

The Board is requested to take note of the information provided in this document and adopt the decision in Annex I.

I. Introduction

1. One of the operational priorities of the initial strategic plan for the GCF, endorsed by the Board at its twelfth meeting,¹ is ensuring that the GCF is responsive to developing countries' needs and priorities, including by enhancing country-led programming. As part of the action plan of the initial strategic plan for the GCF, specific measures were identified to promote the implementation of operational priorities, including the development of country programmes and entity work programmes. Furthermore, measures were identified to determine which priorities identified by countries are the best match for GCF support, such as through the process of structured dialogues between national designated authorities (NDAs)/focal points (FPs), accredited entities (AEs), other relevant stakeholders and the Secretariat.
2. This document presents a summary of the efforts undertaken in the second quarter of 2017 to maintain and strengthen support to country-driven programming, and to provide clearer guidance to NDAs/FPs and AEs on how to strengthen the alignment between the pipeline of funding proposals they plan to develop and the objectives of the GCF.

II. Milestones in programming since the sixteenth meeting of the Board

3. This section presents an overview of the programming activities undertaken in the second quarter of 2017. The following sections will provide more information on key activities undertaken and key results.
4. The Secretariat is continuously engaging with over 100 countries in advising and supporting them to develop their country programme briefs (CPBs) with the objectives of:
 - (a) Supporting the upstream country-driven pipeline development process;
 - (b) Identifying institutional needs to build and strengthen capacity; and
 - (c) Facilitating dialogue between all stakeholders – countries, entities, readiness delivery partners and the GCF – in a way that reflects the highest level of country ownership.
5. Roughly half of the countries engaged with the Secretariat are going through internal country programming processes that target the elaboration of a country programme to be endorsed by their NDAs/FPs.
 - (a) As at the sixteenth meeting of the Board, 24 countries had endorsed their CPBs for the GCF; Antigua and Barbuda had submitted its draft country programme; and Zambia had also completed all interministerial and stakeholder engagement processes and had submitted its official country programme to the GCF; and
 - (b) An additional 18 countries have completed this process for the seventeenth meeting of the Board bringing the total number of countries with CPBs endorsed by their NDAs/FPs up to 42.
6. Official country programmes can be found in Annex I to this document. A compilation of the CPBs endorsed by NDAs/FPs to date is contained in document GCF/B.17/11/Add.01.
7. The Secretariat is also working with the 48 AEs in order to update or develop draft entity work programme briefs. Aiming to strengthen the proactive and strategic approach of the GCF to programming in order to deliver country-owned, high-impact proposals, the entity work programme briefs include the following:

¹ Decision B.12/20

- (a) Engagement with the GCF, which may include engagement on the mission and objectives of the AE, and the envisaged partnership with the GCF;
 - (b) Focus areas, if any, which may include geographical regions, sectors, types of activities, impact areas and other areas on which the AE may be focused; and
 - (c) A potential pipeline with the GCF, which may include information on potential projects and programmes, as well as challenges, barriers, readiness needs and potential solutions to bringing the pipeline to the GCF. The entities may also indicate potential activities where support may be needed under the Project Preparation Facility, including those under the requests for proposals for the pilot phase for enhancing direct access, a pilot programme to support micro-, small- and medium-sized enterprises and a pilot programme to mobilize resources at scale in order to address adaptation and mitigation.
8. A compilation of entity work programme briefs for direct access entities is contained in document GCF/B.17/11/Add.02 and those for international access entities are in document GCF/B.17/11/Add.03.
9. The Secretariat has supported the progress of programming processes by organizing a series of regional structured dialogues and workshops, as follows:
- (a) The first GCF Structured Dialogue with Asia held in Bali, Indonesia, between 26 to 29 April 2017;
 - (b) The GCF empowering direct access workshop, at GCF Headquarters in Songdo, Incheon, Republic of Korea, between 23 to 25 May 2017; and
 - (c) The first GCF regional workshop for Central Asia and Eastern Europe held in Tbilisi, Georgia, between 31 May to 2 June 2017.
10. The Secretariat is currently working on the preparation for Structured Dialogues with the Caribbean (19 to 22 June 2017), Pacific Islands (18 to 21 July 2017), Latin America (September 2017) and Africa (December 2017).
11. In addition, the Secretariat has supported various country-driven activities such as national workshops and a subregional event targeting the Organisation of Eastern Caribbean States (OECS).
12. The Secretariat has promoted the identification of opportunities to advance country-driven technology-related priorities by coordinating regional activities with partners such as the Climate Technology Centre and Network (CTCN). A collaboration with the CTCN, particularly, led to GCF and CTCN events happening back-to-back (in the 2016 GCF regional Latin America workshop, in the 2017 GCF Asia Structured Dialogue, and in the 2017 GCF regional Eastern Europe and Central Asia workshop). The collaboration presented an opportunity for NDAs/FPs of the GCF and the national designated entities of the CTCN to meet and coordinate on country efforts during, and in the sidelines of, the GCF and CTCN event.

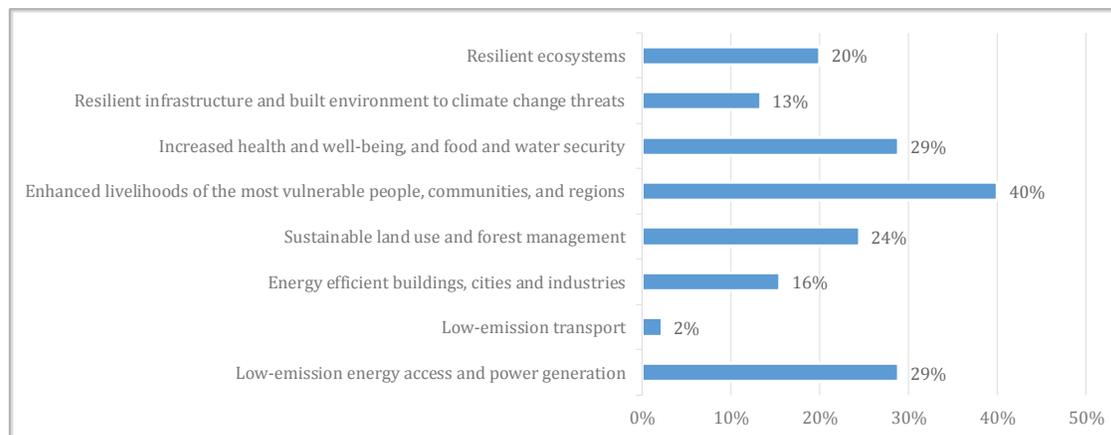
III. Structured dialogues and regional workshops

3.1 Asia Structured Dialogue

13. At the sixteenth meeting of the Board, two Asian countries had presented their CPBs. The Asia Structured Dialogue offered the opportunity for 24 countries to put forward their CPBs. Ten countries have validated their CPBs, with another fourteen countries having CPBs in draft form. Overall, 24 countries identified funding needs from the GCF totalling USD 2.4 billion, for a total project value of roughly USD 9.6 billion. A quarter of the projects identified are being led by direct access entities. Over time, this percentage is expected to increase as more direct access entities are going through the accreditation process. Approximately 40 percent of the

identified portfolio targets funding for the private sector and roughly a quarter of the projects are expected to require project preparation support.

Figure 1: Asia pipeline distribution around strategic impact areas



One project may target multiple impact areas.

14. The identified projects clustered around four key themes:

- (a) Enhancing livelihoods;
- (b) Health, food security and resilience to hazards;
- (c) Scaling up renewable energy generation and energy efficiency measures; and
- (d) Forests and ecosystem resilience.

15. The figure shows the percentage of projects which targeted a specific project area for the projects that have indicated this information.

16. Almost all countries expressed an interest in **enhancing livelihoods** and placed a substantial emphasis on the role of early warning systems. Furthermore, projects targeting the promotion of climate-smart agriculture, ensuring access to markets and supporting agroforestry received attention from countries.

17. Within the priority theme of **scaling up renewable energy generation and energy efficiency measures**, different mechanisms for renewable energy generation were explored. Some of these include: a portfolio risk sharing facility, access to a clean energy fund and multi-country bond funds. The need to scale up private-sector investment in energy efficiency in the industry and building sectors, and to improve waste management practices, was also discussed.

18. Within the theme of **health, food security and resilience to hazards**, activities were proposed to ensure protection for vulnerable communities in case of hydro-meteorological hazards, to increase food security and to improve the management of water resources.

19. Within another theme that received attention, **forests and ecosystem resilience**, countries identified needs related to accelerating national and provincial REDD-plus mechanisms and mangrove rehabilitation.

20. Endorsed Asian CPBs are contained in document GCF/B.17/11/Add.01.

3.2 Empowering direct access

21. Between 23 and 25 May 2017, the Secretariat organized the empowering direct access workshop at its headquarters in Songdo to address the needs of accredited direct access entities (DAEs). The aim of the workshop was to enhance peer-to-peer knowledge exchange, strengthen

the capacity of entities and countries and build partnerships to address climate change. The workshop welcomed 68 participants, of which 41 were representatives of DAEs, 19 of NDAs and 8 of development partners.

22. The event offered the opportunity for the accredited DAEs to engage on how to finalize seven funding proposals and in addition 32 project ideas were shared, along with two enhancing direct access ideas. A number of readiness proposals were also advanced, with six coming from countries and one from a DAE. Furthermore, six Project Preparation Facility requests are expected to be submitted in the near term.

23. The workshop also included sessions where DAEs presented their best practices to other participants as a peer-to-peer learning exercise. Entities have emphasized their need for targeted support based on existing capacity, accreditation scope as well as length of engagement with the GCF. Key needs have emerged around the following issues:

- (a) Offering focused support to countries to build their scientific evidence as a key enabler of transformative projects;
- (b) Building targeted training on project design and implementation;
- (c) Continuing an annual DAEs workshop to promote peer-to-peer learning and South-South exchange; and
- (d) Further expanding the knowledge base on GCF projects, project design and standards.

3.3 Accelerating engagement in Eastern Europe and Central Asia

24. The first GCF regional workshop for Eastern Europe and Central Asia took place between 31 May and 2 June 2017 in Tbilisi, Georgia targeting 15 countries. The event presented an opportunity for stronger engagement between NDAs/FPs, the Secretariat, accredited entities and other development partners, as well as to educate participants about the GCF, its operational modalities and investment framework.

25. The workshop allowed participants to discuss, in groups, the challenges they face in engaging with the GCF. Some of the main messages channelled back from these discussions pertain to a request for enhanced support from the GCF as follows:

- (a) A facilitating role that goes beyond what is perceived as being provided by the existing Readiness and Preparatory Support Programme and the Project Preparation Facility of the GCF. Some examples mentioned by participants include:
 - (i) Support for the development of partnerships;
 - (ii) The development of a roster of consultants to be contacted to work on readiness and Project Preparation Facility activities;
 - (iii) Guidance on and tools for knowledge management, for engaging with the private sector and civil society, and for country programming; and
 - (iv) Guidance on the development of GCF-eligible projects/programmes and monitoring and evaluation mechanisms; and
- (b) A clearer definition of policies or policy-related matters (e.g. risk appetite, co-financing requirements, regional/country participation in a long-term GCF investment portfolio).

26. The workshop addressed a Board mandate from decision B.14/08 to prioritize in 2016 and 2017, among others, direct access entities in the Asia-Pacific and Eastern European regions. To this end, NDAs/FPs were encouraged to include representatives of potential DAEs in their national delegations to the workshop.

27. There are no DAEs already accredited by the GCF in the Eastern Europe and Central Asia regions. Two countries have however nominated a total of three entities for accreditation and, in the sidelines of the workshop in Tbilisi, another three countries presented and discussed with the Secretariat their early plans for DAE nominations.

28. Other early outcomes from the regional Eastern Europe and Central Asia workshop include:

- (a) A calendar for the presentation of new readiness proposals (including adaptation planning proposals) over a three month period, from the time of the workshop;
- (b) Early stage plans to accelerate the development of country programmes; and
- (c) Guidance provided directly to entities (accredited and potential DAEs) and to NDAs/FPs on existing project ideas and upcoming funding proposals.

IV. Subregional and national dialogues

4.1 Subregional Organisation of Eastern Caribbean States road map

29. The GCF supported the First Eastern Caribbean Structured Dialogue which was organized by the OECS Commission under the leadership of the Governments of Grenada, and Antigua and Barbuda. The Dialogue aimed to accelerate the Eastern Caribbean's engagements with the GCF.

30. OECS is an economic union established under the Treaty of Basseterre representing 10 member States, six of which are Parties to the United Nations Framework Convention on Climate Change and have appointed an NDA or FP to the GCF: Antigua and Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines. All six OECS member States are classified by the United Nations as small island developing States.

31. The GCF OECS Subregional Structured Dialogue held in St. George's, Grenada, from 24 to 26 April 2017 resulted in six countries articulating a prospective project pipeline of some 31 low-emission and climate-resilient projects and programmes, with a GCF estimated investment of USD 923.3 million. The projects ranged from USD 300,000 to USD 160 million in potential requests for GCF funding. These are projects that are actively under development, albeit in some cases at an early stage, and that appear potentially viable — although detailed appraisal is needed in most cases.

32. Eleven projects have been identified for further preparation support to measure their potential impact in terms of enhancing resilience and reducing greenhouse gas emissions.

33. The projects and programmes are clustered around the following emerging themes: coastal zone management, climate change ecosystem based adaptation, renewable energy, and all countries placed a strong focus on water management and the need to involve organizations with a water mandate from the region in programming activities for the GCF.

4.2 National dialogues

34. The Secretariat has also supported, through virtual and in-person engagement, national dialogues organized by NDAs/FPs on a range of issues, as follows:

- (a) The **Bangladesh inception event for the GCF country programme** on 1 June 2017 which gathered 11 potential DAEs, representatives of 15 international access entities active in the country, 14 ministries and governmental agencies related to core climate change activities along with a further 32 representatives of other ministries and government agencies, 8 civil society representatives and 15 development partners;

- (b) A **high-level event on the GCF** organized by the Government of Georgia in Tbilisi, on 30 May 2017, gathered some 30 national stakeholders representing Georgian public institutions, the private sector, civil society organizations, potential DAEs and international AEs and Secretariat staff members for presentations on the GCF business model, operational modalities and investment framework (delivered by the Secretariat) and the activities planned under the Readiness and Preparatory Support Programme approved by the GCF to strengthen the capacities of the NDA of Georgia (presented by the Georgian delivery partner). The presentations were intertwined with discussions prompted by participants. The event allowed space for informal bilateral conversations to take place between the Secretariat and national institutions interested in playing a role in the implementation of GCF-funded projects/programmes in Georgia;
- (c) An **Indonesian one-day stakeholder workshop** on 25 April 2017, which included AEs and delivery partners, stakeholders from other government agencies, civil society and the private sector. Discussions focused on progress made on the country programme and the procedures the NDA is establishing to carry out its day-to-day functions, including revising funding proposals and establishing the no-objection procedure. The NDA has also recognized that private sector interest is high and further engagement is necessary in the context of national laws, along with the need to engage and involve local governments particularly on adaptation. Additional engagement has been planned to further develop the country programme, to issue national calls for proposals and to enhance the pipeline of Indonesia's first DAE, Indonesia's state owned infrastructure financing company, PT Sarana Multi Infrastruktur (PT SMI);
- (d) A **Kyrgyzstan national workshop** organized from 28 to 30 March 2017 by the Government of Kyrgyzstan gathered representatives of government, academia, civil society and private sector organizations. The event allowed participants to increase their understanding of the business model and operational modalities of the GCF, and to discuss priority areas for coordination with the GCF taking into account the country's climate change-related context. The workshop set the ground for initial discussions on country priorities and pipeline development, with the initial identification of three priority areas linked to the agricultural sector in which potential project proposals will be further defined; and
- (e) The **Pakistan readiness inception workshop** organized by the NDAs and the National Rural Support Programme on 26 March 2017 which reached over 70 participants, including officials from federal and provincial departments, ministries of the Government of Pakistan, representatives of national and international development organizations, and development networks, civil society, community representatives and the media.

V. Plans for Africa, the Caribbean, Latin America and the Pacific

- 35. In advance of the Caribbean Structured Dialogue taking place on 19 to 22 June 2017, the GCF has engaged all 15 countries in the Caribbean that have an NDA/FP in country programme development. Of these, nine countries have already endorsed initial drafts of their country programmes and it is expected that all countries will do so after the Dialogue. Antigua and Barbuda has also submitted its final official country programme.
- 36. The Secretariat is monitoring the implementation and development of the Pacific road map which emerged from the Pacific Structured Dialogue in 2016 and was presented at the

fifteenth meeting of the Board, in advance of the Structured Dialogue taking place in July 2017. Four projects identified in the road map have since been approved.²

37. A further two African countries have endorsed their CPBs in addition to the eight presented at the sixteenth meeting of the Board, and 11 Latin American countries are revising theirs, with two endorsements presented at the sixteenth meeting of the Board. The Structured Dialogues for Africa and Latin America are expected to take place in the latter part of 2017.

38. A compilation of the CPBs is contained in document GCF/B.17/11/Add.01.

VI. Conclusions and next steps

39. Interactions held so far with NDAs/FPs and entities, particularly DAEs, demonstrate that country-driven programming may benefit from clearer guidance provided by the GCF on the initiatives and funding proposals that the GCF is willing to support. In order to address this identified need, and anticipating growth in the number of countries launching a country programming process driven by their engagement with the GCF, the Secretariat is:

- (a) Further developing a set of recommended guidelines to structure a GCF-driven programming process. These guidelines are being developed by the Secretariat seeking inputs from NDAs/FPs. The Secretariat intends to support investment planning at the national level by taking into consideration the GCF investment criteria, and also the added value of GCF investments in complementarity with that of other partners, such as funds, public institutions, multilateral development banks and the private sector;
- (b) Working more closely with NDAs/FPs, as they develop their country programmes and guide their project/programme pipelines for the GCF:
 - (i) To advise proactively on developing responses to identified needs through readiness and preparatory support;
 - (ii) To advise proactively on mitigation and adaptation activities, where applicable;
 - (iii) To support the analysis of risk-sharing and financing structures or instruments to unlock private-sector finance; and
 - (iv) To provide guidance on the opportunities offered by the financial instruments of the GCF, particularly loans, guarantees and equity, noting the limited use of non-grant instruments in Asia, for instance.

² FP004 “Tina Hydropower Development Project,” FP037 “Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa,” FP036 “Pacific Islands Renewable Energy Investment Program,” FP035 “Climate Information Services for Resilient Development in Vanuatu.”

Annex I: Draft decision of the Board

The Board, having considered document GCF/B.17/11 “Implementation of the Initial Strategic Plan of the GCF: Update on country programmes and entity work programmes”:

- (a) *Takes note* of the information provided in the document;
- (b) *Welcomes* the progress made with the preparation of country and entity work programmes;
- (c) *Requests* the Secretariat to consolidate the country and entity work programmes and provide the Board with the document, as appropriate; and
- (d) *Amends* decision B.12/20, paragraph (d), to replace “at each Board meeting” with the words “annually through a comprehensive status report.”

Annex II: Official Country Programmes: Antigua and Barbuda and Zambia

Antigua and Barbuda





GOVERNMENT OF ANTIGUA AND BARBUDA

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13 June 2017

Mr. Howard Bamsey
Executive Director
Green Climate Fund (GCF)
Songdo, Incheon
South Korea

Re: Submission of Antigua and Barbuda's Country Programme to the Green Climate Fund

Dear Mr. Bamsey,

On behalf of the Government of Antigua and Barbuda, I am pleased to hereby transmit the Country Programme presenting national priorities and plans for GCF engagement.

The Country Programme is a living document that will be revised on an ongoing basis, including through the GCF portfolio reviews that will be facilitated by the National Designated Authority (NDA) in Antigua and Barbuda on an annual basis. The Country Programme is a public document that can be shared and used to showcase Antigua and Barbuda as an example for other countries and stakeholders.

We hope that it will be a useful tool for communicating national priorities and that it will facilitate access to climate financing to meet our Nationally Determined Contribution (NDC) goals under the UN Framework Convention on Climate Change.

Sincerely,

Ambassador Diann Black-Layne
Director
Department of Environment

Antigua and Barbuda

Antigua and Barbuda is a small island state in the Eastern Caribbean whose economy is heavily dependent on natural resources for economic activities. While historically an agricultural island under colonial rule from 1632 to 1981, Antigua and Barbuda's current economy is based on services, with tourism contributing approximately 70% of GDP. The twin island state is highly vulnerable to climate impacts, in particular coastal inundation, droughts, hurricanes, and increasing temperature. To respond to these challenges, the country has conducted vulnerability assessments and led goal-setting consultations, culminating in ambitious climate targets as well as innovative financing mechanisms for implementation. The national focal point for climate change, the Department of Environment (DOE) within the Ministry of Health and Environment, has coordinated these initiatives. The country's policies and institutional capacity building efforts are exemplified by the development of three National Communications on climate change, five years of consultations culminating with the passage of the Environmental Protection and Management Act of 2015, and the enactment of a National Energy Policy by the Ministry of Energy. These efforts have culminated in ambitious mitigation and adaptation targets in Antigua and Barbuda's Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC).

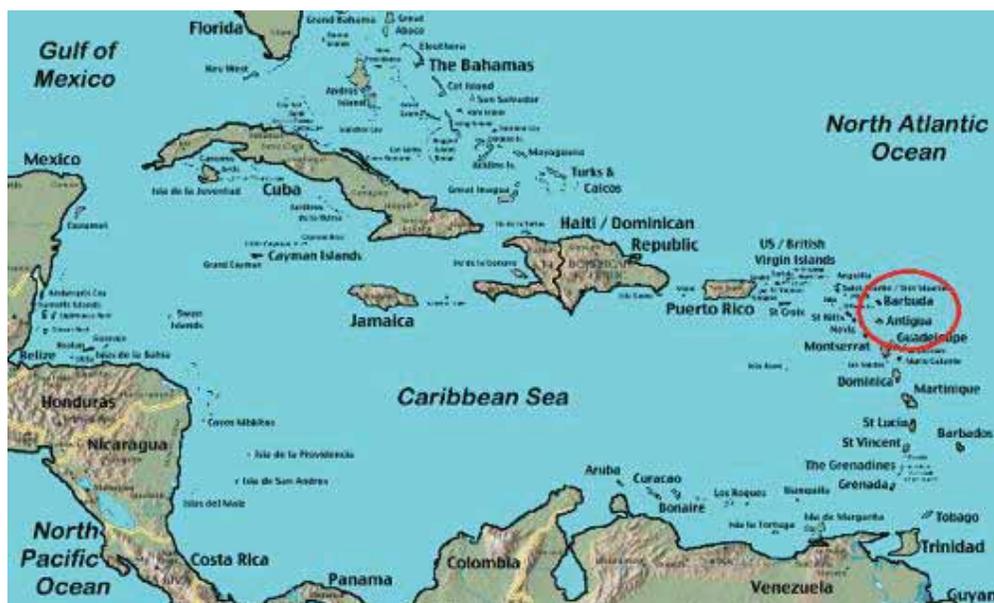


Figure 1. Geographical location of Antigua and Barbuda in the Eastern Caribbean

1. Country Profile

Geographical location	Eastern Caribbean
Land area	108 Sq Miles
Population	92,738
Types of climate	A moderately arid tropical climate with fairly constant northeast trade winds. The island has low precipitation levels due to its low topography, receiving on average

	990 mm per year of rainfall, with seasonal and annual variation
GHG emissions profile	Inventory year 2006: 1917.07 Gg of CO ₂ equivalent. 92% of carbon emissions was from Fuel Combustion in the Energy Sector and 7% from Land Use Change and Forestry. Other emissions inventory data has been compiled for CH ₄ , N ₂ O, NMVOC and HFCs.
Key emitter sectors	Electricity generation; Transportation; Deforestation
Key climate risks	Sea level rise; Extreme rainfall; Drought; Hurricanes; Increasing temperatures
Vulnerable sectors	Water; Health (heat and vector-borne stressors); Energy resilience; Coastal protection; Built environment (buildings and infrastructure); Financial services (insurance)
NDA/FP	Department of the Environment, with responsibilities jointly administered with the Ministry of Finance
National/Regional AEs	Caribbean Development Bank (CDB); CARICOM Climate Change Center
International AEs	UN Environment; European Investment Bank (EIB); KfW
Potential AEs nominated	Department of the Environment in Antigua and Barbuda; the Organization of the Eastern Caribbean States (OECS) Commission; and one Private Sector Entity in the OECS region

1.1 Climate change profile

Antigua and Barbuda is characterized by vulnerability to climate variability. Climate trends for which data is available and analyzed include temperature, rainfall, sea level rise and hurricanes. Results from the Hadley Centre PRECIS (Providing Regional Climates for Impact Studies) regional model have improved the availability of downscaled climate projections on a 25-km resolution for the Caribbean region. PRECIS model results for the Caribbean region project the following trends using SRES A2 (higher emissions) and B2 (lower emissions) scenarios:

- Increase in average surface temperature between 2.8 and 4.5°C by the end of the century
- Average annual rainfall is projected to decrease
- Rainfall variability is projected to increase, with more intense downpours as well as more extreme drought
- Coastal erosion due to storm surge and sea level rise
- Hurricane intensity is likely to increase; increases in hurricane frequency are uncertain

Higher Temperatures: Risks and Impacts on Public Health

Maximum and minimum temperatures have increased over the past 30 years in Antigua and Barbuda; trend analysis of average temperatures (1981 – 2013) by the Department of Meteorological Services indicates an increase of +0.6°C over the time period. Epidemiological research has linked dengue fever transmission to

temperature, where warmer temperatures can shorten incubation periods in mosquitos from 12 days at 30°C to only 7 days at 32 – 35°C. Decreasing mosquito incubation periods by 5 days can lead to a threefold higher transmission rate of dengue and other vector-borne illnesses. Recent epidemics of Chikungunya and the Zika virus in Latin America and the Caribbean underscore the risks of vector-borne illnesses.

In addition to increased risks of vector-borne epidemics, increases in minimum and maximum temperatures contribute to physical discomfort, mental and emotional stress, and are likely correlated with increases heat- and respiratory-related illnesses. Increases in temperature may result in heat stress-related deaths among vulnerable groups such as the elderly and children. In Antigua and Barbuda, only ten percent of homes have cooling through air conditioning. In consultations with communities, many schools and homes need air conditioning to cope with more extreme heat.

Rainfall Variability: Droughts and Floods

The major freshwater sources in Antigua and Barbuda are: i) surface water; ii) groundwater, and iii) desalinated seawater. During wet years, approximately 60-70% of Antigua's daily water supply is obtained through seawater desalination, and dependency on desalination can increase to 100% during drought periods. Desalination is energy intensive and costly; the extended 2016 drought is estimated to have cost the Government millions of dollars.

Drought impacts sanitation practices and recent changes in the epidemiology of leptospirosis – a potentially fatal bacterial disease that affects humans and animals – have been detected. According to the IPCC, leptospirosis is linked to factors in ambient temperature, changes in precipitation, and water availability.

Projections using the PRECIS regional climate model indicate that along with the risk of drying, there is an increase in the intensity of precipitation events over the Eastern Caribbean – including extreme rainfall separate from hurricanes and tropical storms. The impact of floods is already becoming a critical concern for Antigua and Barbuda.



Figure 2. Antigua and Barbuda's largest reservoir, Potworks Dam, in 2013 (above) and after two years of drought in 2016 (below). A community documentary on the impacts of drought is available here: <http://bit.ly/1YfVZ6F>

Storm Surge, Sea Level Rise and the Coastal Tourism Economy

As a coastal economy, one-meter sea level rise (SLR) would impact 10% of major tourism resorts, all seaports, and 2% of major road networks in Antigua and Barbuda. The fisheries sector sustains significant losses during hurricanes, and will be negatively impacted by ocean acidification, SLR, and increasing sea surface temperatures. The recent annual influx of *Sargassum* seaweed to Antigua and Barbuda's windward shores, which may be a result of climatic factors, has caused economic losses in the tourism and fisheries sectors.

Costly Impacts of Hurricanes

Hydro-meteorological hazards pose a great risk to Antigua and Barbuda, and historic disaster records demonstrate that hurricanes and tropical storms are the highest-cost hazards in terms of loss of life and economic losses in the shortest timeframe. Hurricane Luis (1995), one of the most devastating systems, resulted in a 17% decrease in tourist arrivals, left 7,000 people unemployed, 90% of buildings damaged or destroyed, and economic losses amounting to US \$128.35 million or 30.5% of GDP. It took three months to fully restore electricity, highlighting the need for resilient energy systems. In 2008, Hurricane Omar resulted in precipitation of 56.4 mm per hour at its peak, and flood water levels reached 4 to 12 feet in vulnerable communities.



Figure 3. Flooding in the outskirts of the capital of St. John's following the passage of Hurricane Omar in 2008.

Economic impacts of hurricanes and floods, and resultant costs of adaptation, are disproportionately costly to small island states. Climate models project that maximum wind speed of the strongest hurricanes is likely to increase between 5% (low scenario) and 15% (high scenario), which would increase loss of life and economic losses.

Priority Sectors for Adaptation and Mitigation

The key sectors for addressing vulnerability in Antigua and Barbuda are in the building sector (hotels, housing, businesses); wetlands, waterways and coastal ecosystems; potable water; and grid-interactive renewable energy systems. Cross-cutting areas include traditional livelihoods, in particular livelihoods for female headed households.

The key sectors for emissions are electricity, transportation, deforestation and land use change. The mitigation challenge for catalyzing mitigation interventions include legal and market structures for electricity, access to affordable financing, and access to appropriate low emission technology for island states. Antigua and Barbuda is also seeking to address the issue of sustainable consumption and production, targeting procurement practices as a tool for reducing emissions and building resilience through purchasing practices.

1.2 Development profile

Antigua and Barbuda currently relies heavily on the tourism sector as the main engine of growth. The strong performance of the industry and the closely related construction activity in previous years contributed to a

relatively high standard of living in the domestic economy. The economy of Antigua and Barbuda experienced average real growth of 6.82% during the period 2003 to 2007. However, the onset of the global financial crisis and recession in major source markets, contributed to a steep decline of 10.7% in Gross Domestic Product (GDP) in 2009 from growth of 1.5% in 2008, while growth has remained weak thereafter. Furthermore, unsustainable debt levels (96.3% of GDP in 2009), have stifled our ability to effectively respond to the crisis and to address competitiveness issues, while severe structural vulnerability and governance capacity have reduced our resilience.

There is an urgent need to re-invigorate growth in the domestic economy of Antigua and Barbuda and to place it on a more sustainable path in the medium to long-term trajectory. This is critical if the country is to recover lost ground with respect to social and economic development; maintain its high level of human development; and reduce poverty and vulnerability.

The Government of Antigua and Barbuda will target growth in real GDP of 5% over a sustained period, and a decline in unemployment towards full employment levels. Accelerating growth will require, among others, stabilizing the economy, including resolving challenges in the financial sector; expanding the fiscal space for pursuing growth strategy; developing alternative financing vehicles; improving the competitiveness of enterprises, in particular for key resources of water and energy; improving the organization of productive activity; and strengthening the capacity of the domestic private sector to play a greater role in absorbing labour in order to relieve employment pressure within the public sector. Strengthening the capacity of the domestic private sector will in turn better position the public sector to finance important public sector investments and to pursue its growth strategy, sustainable development indicators and ambitious adaptation and mitigation goals.

Domestic Credit Levels and the Ease of Doing Business

The World Bank ease of doing business ranking indicates that, for a small island, Antigua and Barbuda is maintaining adequate standards in most areas except in the areas of tax collection, and in access to capital. A private sector assessment conducted by the Inter-American Development Bank (IADB) in 2013 found that access to finance was a critical challenge to private sector development. The report determined that:

Given the important role played by finance in the development process, the country's poor ranking in terms of access to credit represents a significant risk to private sector development and growth ... Antigua and Barbuda has attempted to fill the credit void through the establishment of a national development bank, but the credit needs of the private sector significantly outstrip the available resources.

In addition, the difference between the interest rate charged by banks on loans and the interest rate paid by banks on savings deposits – the interest rate spread – is 8 percentage points in Antigua and Barbuda; one of the widest among its comparator group of countries globally, as reported by the IADB. Access to capital for climate change will therefore be a challenge and could drive up the already high cost of doing business unless new and additional sources of capital are made available to implement adaptation and mitigation.

Development Strategy

The Medium-Term Development Strategy (2016 to 2020) was prepared by the Ministry of Finance and Corporate Governance in September 2015 to outline progressive actions towards the vision of, "A harmonious, prosperous and modern Antigua and Barbuda founded on the principles of sustainability and inclusive growth; where equality

of opportunity, peace, and justice prevail for all citizens and residents.” The sustainable development plan strives to increase national wealth, support social systems, conserve a healthy natural environment cultural heritage, and enhance citizen security.

To improve the quality of life for all Antiguan and Barbudans, the Government is continuing an aggressive path of attracting foreign investments in the areas of tourism development, housing, and the service sectors. The Prime Minister’s 2017 Budget Speech called for renewed investments in critical infrastructure, including roads, schools, hospital and clinics.

The Government is seeking to manage risk in its new investments by using systematic approaches, including Environmental Management Systems ISO standards, developing a sustainable procurement policy for the public sector, reviewing the coastal zone management plan to consider the impacts of climate, reviewing the land use plan for wetlands and watersheds, and updating and implementation of the Building Code to include climate adaptation in built facilities.

In financial risk management, in addition to the traditional financial risks, there is an emerging need to address the issue of stranded assets caused by climate change. To address climate-related risks, the Government has operationalized the Sustainable Island Resource Framework Fund (SIRF Fund) as an important mechanism for channeling funds from different international and national sources that piloting and scale up innovative financing mechanisms that systematically manage risk.

Financial, Technology and Capacity Building Needs

Antigua and Barbuda requires international support from multilateral and bilateral sources, including through the Green Climate Fund (GCF), the Global Environment Facility (GEF), the Adaptation Fund, and other sources, for capacity building, climate finance and technology transfer to strengthen its current programs, policies and regulations; to develop and implement new initiatives; and to fully assess and address the impacts of climate change, as defined in the adaptation and mitigation targets.

Activities requiring support for implementation include inter alia:

- Support for the development and implementation of a Low-emission Climate Resilient Technology Strategy and Road Map that includes repurposing, decommissioning, and disposing of stranded assets;
- Comprehensive assessment of the cost of mitigation and the incremental cost of adaptation;
- Enhancing Measurement, Reporting and Verification (MRV) processes;
- Development of standardized baselines to assess and monitor the impacts of implementing INDC adaptation and mitigation initiatives;
- Support for data collection, storage and management; and
- Support for education, training, public awareness, public participation, public access to information, and international cooperation throughout implementation of the NDC targets.

1.3 Climate change policy response

Antigua and Barbuda has completed the following national initiatives under the UNFCCC:

- ✓ Nationally Determined Contribution (NDC)
- ✓ First, Second and Third National Communications

Antigua and Barbuda has applied for and/or secured funding to complete the following national initiatives:

- ✓ Biennial Update Report (BUR)
- ✓ National Adaptation Plan (NAP)

Box 1. Transformational Change – Our Definition

“Changes to the current systems of Governance and economic management to allow Antigua and Barbuda to **adapt** to the impacts of climate change **such that the economy and the people can withstand** a Category 5 hurricane, one meter of sea level rise, and a drought lasting over three years, while the **core economy is still functioning** at a capacity similar to that as if climate change were not occurring.”

Table 1: Summary of INDC/NDC targets		Estimated resources required USD \$
Conditional	<p>Adaptation:</p> <ol style="list-style-type: none"> By 2025, increase seawater desalination capacity by 50% above 2015 levels. By 2030, all buildings are improved and prepared for extreme climate events, including drought, flooding and hurricanes. By 2030, 100% of electricity demand in the water sector¹ and other essential services (including health, food storage and emergency services) will be met through off-grid renewable sources. By 2030, all waterways are protected to reduce the risks of flooding and health impacts. By 2030, an affordable insurance scheme is available for farmers, fishers, and residential and business owners to cope with losses resulting from climate variability. 	USD 450 – 670 million
	<p>Mitigation:</p> <ol style="list-style-type: none"> By 2020, establish efficiency standards for the importation of all vehicles and appliances. By 2020, finalize the technical studies with the intention to construct and operationalize a waste to energy (WTE) plant by 2025. By 2030, achieve an energy matrix with 50 MW of electricity from renewable sources both on and off-grid in the public and private sectors. By 2030, all remaining wetlands and watershed areas with carbon sequestration potential are protected as carbon sinks. 	USD 350 – 500 million
Unconditional	<ol style="list-style-type: none"> Enhance the established enabling legal, policy and institutional environment for a low carbon emission development pathway to achieve poverty reduction and sustainable development. By 2020, update the Building Code to meet projected impacts of climate change. 	USD 230 million

2. Country Agenda and GCF Engagement

The following section provides a summary of national plans and alignment with GCF operational modalities and investment criteria.

2.1 Institutional arrangements

Antigua and Barbuda is a member of the Organization of the Eastern Caribbean (OECs), a nine-full member grouping comprising Antigua and Barbuda, the Commonwealth of Dominica, Grenada, Montserrat, St Kitts and Nevis, St. Lucia and St Vincent and the Grenadines. The cumulative population of the OECs member states (not including the associate

members) is 620,000 people. The Revised Treaty of Basseterre Establishing and Organisation of Eastern Caribbean States Economic Union (the Revised Treaty) provides the legal framework for integration.

OECS Member States have pursued regional unity, solidarity and cooperation, including in climate change, environmental protection and sustainable development. The St. George's Declaration of Principles for Environmental Sustainability, adopted by Member States in April 2001, provides a regional framework response to climate change for the OECS. The OECS Council of Ministers for Environmental Sustainability (COMES) meets annually to implement the regional agenda, and in 2016 the Ministers established a Climate Change Working Group with representatives from each Member State. Antigua and Barbuda is an active member of this regional architecture to implement the climate priorities in the St. George's Declaration.

In Antigua and Barbuda, the national project management framework consists of two implementation/management units, and one coordination/oversight unit. The management entities are the Project Management Unit (PMU) and the Technical Advisory Committee (TAC), while the overseeing entity is the Project Management Committee (PMC). The institutional arrangements and outlined within the draft No-objection Procedure.

The Department of Environment has also been nominated by the Government of Antigua and Barbuda as Antigua and Barbuda's direct access National Implementing Entity (NIE).

National Designated Authority and No Objection Procedure

The Department of Environment (DOE) in the Ministry of Health and the Environment is responsible for the coordination and implementation of all multilateral environmental agreements (MEAs) including climate change, biodiversity, land degradation, among others. The DOE is also the focal point of the Adaptation Fund and the Global Environment Facility (GEF). The Government's strategy is to build capacity for MEAs in one agency to provide for enhanced accountability and coordination across agencies and stakeholders, and to accommodate Antigua and Barbuda's small island context that requires streamlining of institutional structures.

Antigua and Barbuda's National Designated Authority (NDA) to the Green Climate Fund is the DOE, and the Ministry of Finance serves as a co-signatory for the No Objection procedure for the GCF. The No Objection procedure was developed with Antigua and Barbuda's first Readiness grant, and was approved by the PMC in March 2017. In 2016, the Ministry of Foreign Affairs and the office of the Attorney General's Office prepared and completed the Privileges and Immunities (P&I) agreement with the GCF.

The DOE is the national coordinating agency with its roles and responsibilities established under the Environmental Protection and Management Act of 2015. The Ministry of Finance provides a role in the in ensuring that all financing risk for projects being implemented by Accredited Entities are known, have undergone comprehensive consultation, and the proposals are approved based on agreed criteria.

The Ministry of Foreign Affairs chairs the National Coordinating Mechanism (NCM), which provides a forum for the political coordination of the country's engagement with the Green Climate Fund. As such, Antigua and Barbuda's Ambassador for Climate Change presents annual reports to the Minister of Foreign Affairs.

Other agencies and stakeholders that assist the NDA to performs its responsibilities are the overseas Missions in New York and London, the Ministry of Public Work, the Antigua Public Utilities Authority, the private sector and the non-governmental organizations including the Marine Ecosystems Protected Areas Trust (MEPA Trust). The Department of Environment therefore coordinates the work of the NDA with established multi-stakeholder technical and oversight committees.

National Climate Change Engagements with other International Partners

The Department of Environment (DOE) is the national focal point for climate change, and has a responsibility for coordinating climate finance initiatives in Antigua and Barbuda. Climate change projects are developed to align and further the implementation of national policies, goals and strategies. The SIRF Fund is the designated national fund for climate change, and is the mechanism through which international climate finance catalyzes sustainable interventions and leverages national sources of financing to achieve transformational outcomes for the country (see Box 1).

The DOE is assisted in its climate coordination work by the consultative body of the Technical Advisory Committee and the oversight of the Project Management Committee, and the legally appointed National Coordinating mechanism (NCM). This system is designed for efficient programming of climate finance, technology transfer and capacity building.

Table 2. Relationships with existing Accredited Entities and relevant partners			
Entity/Partner Name	Area/s of focus	Engagement in country	Efforts to strengthen engagement
Organization of Eastern Caribbean States (O ECS) Commission	Vulnerability; Adaptation; Sustainable Development	The OECS Commission is implementing a sub-regional GCCA project that is developing the climate change policy for Antigua and Barbuda. The Commission is the Secretariat for the OECS Climate Change Working Group.	Antigua and Barbuda has allocated USD 100,000 of its Readiness support for the OECS Commission to be accredited to the GCF.
UN Environment	Ecosystem Based Adaptation, Sustainable Procurement, enabling activities for the GEF.	There is no in-country presence for UNEP. UNEP however assists Antigua and Barbuda to program the country's GEF Portfolio.	The engagement with UNEP is very strong and will utilize funding from project development facility to assist the partnership to develop projects in the program.
CARICOM Climate Change Center (5Cs)	Renewable energy and adaptation.	There is no in country presence for 5Cs, however Antigua and Barbuda has participated in several regional projects being executed by the 5Cs.	Antigua and Barbuda plans to identify a project for the 5Cs to program on behalf of Antigua and Barbuda.
UNDP	Sustainable Financing, Environment and Social and gender. Protected areas Management.	The UNDP country office is in Barbados. Antigua and Barbuda has a long-standing and productive relationship with UNDP, which implemented the first full size GEF project with the DOE serving as Executing Entity.	The NDA plans to continue to build the relationship with UNDP.
Caribbean Development Bank (CDB)	Loans for RE and EE ongoing with Antigua and Barbuda.	The Bank is based in Barbados and has a significant loan portfolio with Antigua and Barbuda.	The Ministry of Finance intends to engage actively with the bank to further promote the Climate portfolio.

2.2 Roles and contributions of key stakeholders

Key Stakeholder Groups and Consultations

Antigua and Barbuda's national circumstances facilitate consultative engagement; as a small country, key stakeholders meet in person monthly via the Technical Advisory Committee (TAC). The TAC includes representatives from 17 key government agencies, 3 non-governmental organizations and one private sector coalition, and provides technical guidance, policy recommendations and support; facilitating communication, cooperation and coordination among relevant stakeholders and other projects. The TAC has been meeting monthly since 2014 and has been a key consultative body in the NDC formulation and designing Antigua and Barbuda's engagement with the Green Climate Fund.

Stakeholder engagement being conducted on a continuous sustained basis allows for insight into the social consequences of the project, an appropriate gauge on the expectations that stakeholders have of the project; identification and analysis of social, political, environmental, economic contexts in the target area; and the determination of their appropriate responses and strategies for mitigation of conflict.

Consultations on the country programme began with the development of the INDC in 2015. The process included reviewing and synthesizing consultation reports and household surveys from the CARIBSAVE climate change vulnerability assessment, TAC and PMC discussions, and two meetings of the Cabinet of Antigua and Barbuda. Special meetings with non-governmental organizations were held in community centers as well as jointly with Government stakeholders on specific projects identified in the country programme. In addition to multi-sector technical input, targeted stakeholder consultations on the national Climate Change Policy and Action Plan, which is currently under development with support from the Global Climate Change Alliance (GCCA), provided valuable input into the country programme.

While the government and civil society consultations delivered fruitful results, engagement with the private sector has not been as successful as that of the other stakeholders. The country programme, which includes the reimbursable grant program designed for the private sector, will require additional consultations. Antigua and Barbuda's second Readiness grant will deliver a scoping study and targeted consultations with the private sector.

(i) What are their expected roles in the implementation of the country programme?

Continuous stakeholder involvement throughout the project cycle is important to bringing about behavioural change in tandem with project interventions, and achieve the transformational goals of the country programme in line with GCF priorities. Stakeholders are expected to participate in project implementation, and technical and policy advice. Sectors of the projects will be implemented by the NGO Community. It is expected that the private sector will play a role in the sustainable procurement approach and make sustainable produced products available in their inventory.

(ii) Is there particular technical assistance, policy dialogue support, or other support that might enable national stakeholders to take processes forward? Is there a role that GCF support could play in this context?

Antigua and Barbuda's NDA and nominated NIE will be taking steps to include funding for the respective stakeholders in the Readiness program, to build capacity and facilitate the successful implementation of the country programme. To this end, Antigua and Barbuda's Readiness program includes support and capacity building for the multi-sectoral committees and partners that are core to the consultative process.

Stakeholder group	Date of consultation	Type or objective of consultation	Outcome
National stakeholder consultation	20 November 2014	Consultations on the National Vulnerability Analysis for Antigua and Barbuda	Validation of the National Vulnerability

		Barbuda: Vulnerability Impact and Adaptation Analysis in the Caribbean (VIAAC)	Impact and Adaptation Analysis for Antigua and Barbuda
National stakeholder consultation	25 February 2015	Climate change workshop under the Regional Gateway for Technology Transfer and Climate Change Action in Latin America and the Caribbean	Capacity building in climate change
Parliament of Antigua and Barbuda	March – April 2015	Parliamentary consultation and discussion on the Environmental Protection and Management Act	Passage of the EPMA (2015) in Parliament
Multi-sector Committee	26 August 2015	INDC stakeholder consultation workshop	Submission of the NDC
Cabinet of Antigua and Barbuda	23 Sept 2015	A high level presentation on Climate Change and the Paris Agreement	Approval of NDC targets
Multi-sector Committee	30 March 2016	Consultations under the first Readiness proposal on the implementation plan for project activities	Strategy for implementing Readiness capacity building support
Communities on the northwest coast of Antigua	June – August 2016	Door-to-door household surveys on climate vulnerabilities and their demand for concessional loans for adaptation	Market research paper on the demand for concessional loans for adaptation
Parliament of Antigua and Barbuda	September 2016	Ratification of the Paris Agreement	Ratification of the Paris Agreement
Key climate change stakeholders in all sectors	December 2016	Launch of the Special Climate Change Fund (SCCF) project in Antigua and Barbuda	Approval of the project implementation plan
Multi-sector Committee	7 February 2017	Review of Antigua and Barbuda's country programme to the GCF	Official submission of country programme
Cabinet of Antigua and Barbuda	21 March 2017	Presentation to Cabinet on the draft Regulations for the SIRF Fund and the Revolving Fund Programme for Adaptation	Cabinet noted the draft Regulations

2.3 Identification of country priorities for the GCF

➤ Summarize national priorities derived from policies identified in Section 1.3

Adaptation:

- Water – Antigua and Barbuda needs to move towards 100% reverse Osmosis for the islands. Droughts are more frequent and lasting longer. There is also a need for additional on-site storage for community buildings such as schools and clinics;
- Resilient energy – already Antigua and Barbuda has about 25% redundancy at the national level. This will have to increase over the next 4 years;
- Resilience in buildings – the revised Building Codes for climate resilience will establish guidelines for buildings that can withstand category 5 storms. The private homes and businesses will need access to financing at reasonable rates for this to take place. This is the key area of concern for Antigua and Barbuda;

- Protection of beaches and coastal areas; and
- Protection of watersheds and waterways to reduce flooding and control surge in the population of vectors

Mitigation:

- Energy – electricity and transportation sectors;
- Protection of last remaining forest and watershed areas;
- Energy Efficiency and Renewable Energy in Buildings; and
- Sustainable procurement policy to reduce the use of carbon intensive products.

Capacity Building:

- Land use zoning and local area planning; and
- Short- and long-term training in all areas of climate adaptation and mitigation.

➤ *Summarize the process of distilling these priorities into projects and programmes that are consistent with GCF policies.*

Some questions to be addressed in defining these priorities:

- *Is there early alignment with GCF's fund level strategic impacts across mitigation and adaptation?¹*
- *Is there alignment with the investment criteria (impact potential, paradigm shift potential, sustainable development potential, needs of the recipient, country ownership and efficiency and effectiveness)²*

Antigua and Barbuda's approach to achieving transformational change towards a low emission climate resilient development pathway is to understand the island's core vulnerabilities to climate change and sources of emissions; to develop a programme and pipeline of projects that will have the greatest impact on the ground, demonstrating innovative and sustainable financing mechanisms for long-term impact; to incorporate interventions into national law, standards, policies and regulations; and to implement projects that work collaboratively with all sectors – government, NGOs and the private sector – to maximize local buy-in and ownership.

Antigua and Barbuda's country programme is aligned with the eight investment priorities of the GCF, and the projects will achieve significant co-benefits. The programme will achieve impact potential by integrating adaptation into development processes, thereby avoiding lock-in of long-lived, climate-vulnerable infrastructure, in particular coastal infrastructure that is vulnerable to sea level rise.

Antigua and Barbuda's NDC mitigation analysis indicated a potential to reduce national emissions by 36% below Business as Usual by 2025:

¹ The 8 GCF Fund level strategic impacts are listed on the GCF website, [here](#). Detailed information is provided in the mitigation and adaptation performance measurement framework, found [here](#).

² Initial guidelines on the investment criteria are provided in the GCF Investment Framework provided [here](#) with detailed activity-specific sub-criteria and indicative assessment factors further defined [here](#).

Scenario	GHG Emissions (Thousand tCO ₂ e)	
	2025	2030
BAU 1	955	1,161
BAU 2 (includes Adaptation)	973	1,178
Mitigation 1	866	1,033
Mitigation 2	644	786
Mitigation 3	619	737
Mitigation 4	607	711
Total GHG Reduction	348	450
% Reduction (compared to BAU)	36%	38%

Figure 4. Analysis of the mitigation potential of Antigua and Barbuda's NDC targets using the LEAP model (October 2015). The waste-to-energy facility NDC target will have a significant impact on emissions (Mitigation 2)

The interventions are designed to a suite of projects to achieve long-term impact, and to leverage Government co-financing and resources in the private sector, to achieve paradigm shift potential. The sustainable development potential of the country programme is reflected in the strategic targeting of vulnerable sectors such as the dual vulnerability of water and energy. Antigua and Barbuda's high debt-to-GDP ratio and constraints accessing capital, contrasted with the island's disproportionate vulnerability to climate change, underscore the needs of the recipient.

Having established a strong understanding of the project or programme at the endorsement phase, Antigua and Barbuda's NDA and Committees will be well positioned to continue to facilitate country ownership and stakeholder buy-in throughout project implementation.

Finally, mainstream the No Objection procedure and the consultative processes into established and proven decision-making processes of the GEF and Adaptation Fund and other national processes will support efficiency and effectiveness of GCF programming.

- o *What are the benefits of GCF intervention relative to other financiers?*

Antigua and Barbuda is applying for the climate-relevant portion of funding for each of the projects. As a party to the Paris Agreement, Antigua and Barbuda is now applying to the Financial Mechanism of the Convention of which the GCF is an operating entity. The country understands that the GCF serves this Agreement and therefore the first steps in Antigua and Barbuda's request is meeting the contributions outlined within its NDC.

The country has some access to capital and only expects that the GCF would fund the sections of the projects that is caused by climate change.

- o *Have all financing options been explored?*

Antigua and Barbuda is a highly indebted country with limited access to capital. Further, the country is a Party to the Paris Agreement and the GCF is the funding mechanism for this Agreement. Other options are being explored but the GCF is one of the first options since it is designated by the UNFCCC.

- o *Are financing needs commensurate to the country's needs?*

The financing requested is consistent with the predicted and actual impacts of climate change in Antigua and Barbuda, as outlined in the climate section of this document, and financing is determined to be at the levels that can trigger

transformational change for Antigua and Barbuda as a small island state to achieve the objectives of the Paris Agreement in the national context. While the financial needs for adaptation in particular are significantly higher than the amount being requested, it has been determined that the proposed program will place the Country on a path to a more resilient and low emission economy.

- *Which options for leveraging the private sector have been assessed?*

The Sustainable Island Resource Framework Fund (SIRF Fund) is designed to leverage private sector financing at the household and small business level through a revolving reimbursable grant program to reach the private sector at the appropriate level. The private sector, in particular the tourism sector, will be engaged through consultations under the Readiness programme, and the NDA will facilitate private sector engagement with the regional and international AEs of the GCF with on-lending and blending accreditation.

- *Where possible an analysis of the methodology used in the prioritization process can be provided as an Annex to the Country Programme.*

The country programme present projects that are designed to implement the adaptation and mitigation priorities submitted in the NDC in 2015. The NDC actions were prioritized leading up to the negotiations of the Paris Agreement.

Antigua and Barbuda's No Objection procedure is designed to embody the principle of country ownership and as such presents criteria for evaluating GCF proposals. These criteria have also been applied to the development of the country programme.

Criteria 1. The funding proposal is in conformity with Antigua and Barbuda's national priorities, strategies and plans.

- Is the funding proposal in compliance with national law and policy?
- Will the funding proposal advance national adaptation and/or mitigation targets?
- Will the funding proposal incur a debt burden by the Government of Antigua and Barbuda?

Criteria 2. The funding proposal complements, and does not duplicate, ongoing projects and programmes.

- Does the funding proposal duplicate an existing project or programme?
- Does the funding proposal complement and add value to an existing project or programme?

Criteria 3. Affected communities, relevant local civil society, public and/or private sector entities have been consulted and actively involved in planning and implementation.

- Have relevant stakeholders been consulted in the preparation of the funding proposal?
- Are there measures in place to manage any potentially significant negative impacts to relevant stakeholders?
- Has the funding proposal identified opportunities to build local capabilities and competencies?

2.4 Country Portfolio

- *Overview of the pipeline for projects and programmes, Project Preparation Facility requests, Readiness and accreditation.*

The country program will rely on the partnering with Accredited Entities that can program the range of grants, reimbursable grants and loans. Antigua and Barbuda will accredit one national direct access entity, and this entity is expected to program about one third of the projects in the country programme. Antigua and Barbuda is in the process of identifying the appropriate AEs to be engaged, including AEs that are in the pipeline for accreditation.

The NDA/pending NIE will apply to the project preparation facility (PPF) for funding to develop the projects identified in the country programme. The implementation of the National Adaptation Plan (NAP) Readiness support is expected to generate the information for the ecosystem-based adaptation projects in the programme pipeline, and will complement the PPF application.

- *In the action plan below each project or proposal outline the next steps for taking it forward, along with the lead actor for taking the action forward and a timeline by which the action should be completed.*

Table 4: Country projects/programmes pipeline				
Project Title	Description	Accredited Entity		Submission timeframe
Demonstrating Enhanced Direct Access in the public, private, and civil society sectors of Antigua and Barbuda, Dominica, and Grenada in the Eastern Caribbean (EDA)	The project will be implemented in three (3) countries within the Eastern Caribbean – Antigua and Barbuda, Dominica and Grenada. The overall goal of the project is to contribute to the achievement of the provisions enshrined in Article 24 of the Eastern Caribbean’s Revised Treaty of Basseterre governing environmental sustainability, namely addressing the causes and impacts of climate change, by piloting an integrated and collaborative approach to increasing adaptive capacity of vulnerable communities.	Department of Environment, Antigua and Barbuda (pending accreditation)		Re-submission in October 2017 (B.18)
Fund level strategic impacts	The objectives of the project are three-fold: (i) to demonstrate the benefits of enhanced direct access in the public, private and non-governmental sectors for supporting concrete action at the local level in selected Member States of the Eastern Caribbean, (ii) to achieve open, transparent and multi-stakeholder decision-making systems that allocate climate finance to vulnerable communities, and (iii) to increase the adaptive capacity of ecosystems and built infrastructure in vulnerable communities to the projected impacts of climate change.	Total financing: 23M		Status
6, 7 with cobenefits for 1 and 3		<u>GCF:</u> 20 M	<u>Other:</u> SCCF, Adaptation Fund	First draft submitted to the GCF in August 2016; Readiness support to develop the EDA project document was secured; the Department of Environment has applied for Accreditation (fast-track).
Action		Lead		Timeline
Submission of revised funding proposal		National Implementing Entity (pending)		October 2017 (B.18)

Project Title	Description	Accredited Entity		Submission timeframe
Resilience to Hurricanes, Floods and Droughts in the Building Sector	Physical infrastructure in Antigua and Barbuda must be adapted to the dynamic threats of water scarcity, heavy rainfall events, and more intense storms and hurricanes.	UN Environment		October 2017 (B.18)
Fund level strategic impacts:	The project will implement the NDC target, <i>By 2030, all buildings will be improved and prepared for extreme climate events, including drought, flooding and hurricanes.</i> The project will build the resilience of key Government and community buildings to Climate Change to support services in health, education and emergency response (police, fire stations, etc.).	Total financing:		Status
6, 7 with cobenefits for 1 and 3		<u>GCF:</u> \$35 M	<u>Other:</u> Government of Antigua and Barbuda (\$TBD)	Concept Note will be submitted to the GCF in June 2017. Full project proposal anticipated for B.18
Action		Lead		Timeline
Submit Concept Note to GCF		UN Environment		June 2017
Full funding proposal		UN Environment		October 2017 (B.18)

Project Title	Description	Accredited Entity		Submission timeframe
Transformational Adaptation Programme for Water in Antigua and Barbuda (TAP)	Antigua and Barbuda, already an arid island state, lie in a zone that is expected to receive 30 – 50% less rainfall in 2090 compared to late twentieth century rainfall norms. Surface water will be an increasingly unreliable source of potable freshwater in Antigua and Barbuda due to climate change impacts, with implications for both household storage and cisterns, and nationally with surface water catchments.	Selection in process		2019
Fund level strategic impacts:	The programme will achieve transformation of the water sector to cope with projected climate impacts through an integrated approach of increasing water storage, addressing distribution loses, improving surface catchment, wastewater treatment and recycling, and increasing desalination supply.	Total financing:		Status
6, 7 with cobenefits for 1 and 3		<u>GCF:</u> 50 M	<u>Other:</u> UN-HABITAT; Government of A&B; GEF	PPF application under development
Action		Lead		Timeline
Project Preparation Facility		National Implementing Entity (pending)		2017

Project Title	Description	Accredited Entity		Submission timeframe
St. John's as a model Sustainable City catalyzing a low-emission development pathway	A national sustainable land use framework was developed and approved by Cabinet in 2012, outline a sustainable spatial development strategy for the country (SIRMZP, 2012). This project will develop and implement a local area sustainable urban areas plan to transition Antigua and Barbuda's urban areas into low-carbon, resilient sustainable communities using sustainable procurement practices.	Selection in process		2019
Fund level strategic impacts:		Total financing:		Status
7 with co-benefits for 1, 3		<u>GCF:</u> 35 M	<u>Other:</u> UN-HABITAT; Government of A&B; GEF	Concept is being developed
Action	Lead	Timeline		
Project Preparation Facility application	National Implementing Entity (pending)	2017		

Project Title	Description	Accredited Entity		Submission timeframe
SIRF Fund Revolving for Adaptation	This project will build upon Adaptation Fund and GEF-approved projects that established the Adaptation Revolving Fund for Antigua and Barbuda's Sustainable Island Resource Framework Fund (SIRF Fund). The national Fund targets adaptation activities in the building sector and funds are provided to traditionally high-risk groups that are unable to access credit. Communities in Antigua and Barbuda use a "box hand" as a local microfinancing for persons who cannot get financing through traditional sources. The project will support low-income home and building owners, single-headed home (including female-headed homes), farmers and fishers.	Selection in process		2018
Fund level strategic impacts:		Total financing:		Status
6, 7 with cobenefits for 1 and 3		<u>GCF:</u> 10 M	<u>Other:</u> Government of Antigua and Barbuda 13M	The Revolving Fund is being piloted with funding from the GEF and the Adaptation Fund as well as the proposed GCF Enhance Direct Access program.
Action	Lead	Timeline		
Finalization of feasibility studies; Technical Feasibility Studies for Project focus.	National Implementing Entity (pending)	2017		

Project Title	Description	Accredited Entity		Submission timeframe
Protecting and Restoring Watersheds,	This project will reduce exposure to projected climate change impacts by implementing ecosystem-based adaptation to protect coastal	Selection in process		2018

Coastal Wetlands and Beaches for Ecosystem-based Adaptation and Sustainable Livelihoods	areas and wetlands for flood alleviation (restore buffer zones, physical setbacks) to reduce flood risk zones, restoring vegetative cover to reduce erosion, re-engineering waterways and restoring coastal areas as critical natural assets. Coastal wetlands will be protected as carbon sinks, and sustainable livelihood opportunities will be supported.		
Fund level strategic impacts:		Total financing:	Status
5, 8 with co-benefits for 4		<u>GCF:</u> 45 M	<u>Other:</u> Government of Antigua and Barbuda The DOE submitted the NAP readiness application for USD 3 M in January 2017
Action	Lead	Timeline	
NAP Readiness support for technical studies	National Implementing Entity with approval from the GCF	April 2017	
Full project proposal submission to the GCF	National Implementing Entity	2018	

Project Title	Description	Accredited Entity	Submission timeframe
Reducing Emissions through a Blue Economy: Establishing a Ridge to Reef Sustainable Management System for the Southwest Area of Antigua	In 2006, land use change and forestry contributed 7% of national emissions. Land use change can be mitigated through removal of GHG emissions by carbon sinks. The Environmental Act of 2015 establishes the legal backing such that, "Where the area is protected as a carbon sink it shall follow the principles developed by the UNFCCC." The project will implement the NDC target, <i>By 2030, all remaining wetlands and watershed areas with carbon sequestration potential will be protected as carbon sinks.</i> The demonstration area will be Antigua's southwest watershed and reef system. The goal is to reduce vulnerability of communities and businesses, by increasing the ability of the watersheds to handle extreme rainfall and reduce the incidences and impacts of coastal erosion, while increasing the resilience of the built environment simultaneously to cope with the multiple stressors of climate change.	Department of Environment, Antigua & Barbuda	2019
Fund level strategic impacts:		Total financing:	Status
5, 8 with co-benefits for 4		<u>GCF:</u> 10 M	<u>Other:</u> Government of A&B Baseline studies have been conducted
Action	Lead	Timeline	
NAP Readiness support to collect baseline data	Department of Environment	2017	
Concept and full proposal submission to the GCF	Accredited Entity	2018	

Project Title	Description	Accredited Entity		Submission timeframe
Reducing Emissions in the Transportation Sector	Reduction of GHG emissions from the transportation sector by urban planning, emissions standards in vehicles, and converting mass transit vehicles from fossil fuel to electric, using renewable energy sources. The project will establish an incentives framework for the private sector to transition to electric vehicles.	Selection in process		2018
Fund level strategic impacts:	The reimbursable grant component will be programmed as a revolving fund with the DOE operated SIRF Fund for the purchase of electric vehicles for public sector transportation. Grants will be programmed for the establishment of the infrastructure in public places and to prepare the policy and legal framework for the transition to sustainable transportation including public transportation for Schools, health, and Government sectors.	Total financing:		Status
1, 2 with co-benefits for 5, 7		<u>GCF:</u> 40 M	<u>Other:</u> Bilateral support; Government of Antigua and Barbuda	Antigua and Barbuda has received USD 625,000 through bilateral support to conduct financial, technical and EIA studies
Action	Lead	Timeline		
Financial, technical and environmental and social feasibility studies	National Implementing Entity with partner agencies	2017		
Concept and full proposal	AE to be identified	2018		

Project Title	Description	Accredited Entity		Submission timeframe
St. John's as a model Sustainable City catalyzing a low-emission development pathway	A national sustainable land use framework was developed and approved by Cabinet in 2012, outline a sustainable spatial development strategy for the country (SIRMZP, 2012). This project will develop and implement a local area sustainable urban areas plan to transition Antigua and Barbuda's urban areas into low-carbon, resilient sustainable communities using sustainable procurement practices.	Selection in process		2019
Fund level strategic impacts:		Total financing:		Status
7 with co-benefits for 1, 3		<u>GCF:</u> 35 M	<u>Other:</u> UN-HABITAT; Government of A&B; GEF	Concept is being developed
Action	Lead	Timeline		
Project Preparation Facility application	National Implementing Entity	2017		

Project Title	Description	Accredited Entity		Submission timeframe
Waste-to-Energy Facility for emissions reductions	The project will implement the NDC target to, <i>By 2020, finalize the technical studies with the intention to construct and operationalize a waste to energy (WTE) plant by 2025.</i>	Selection in process		2019
Fund level strategic impacts:	The project will finalize technical studies for an anaerobic digester/waste to energy (WTE) plant to process 80,000 tonnes/yr sorted municipal solid waste and 13,000 tonnes/yr organic waste from distillery; construct and operationalize the plant. Emissions savings from this project are estimated at 200,000 tonnes CO ₂ -e per year.	Total financing:		Status
1, 4 with co-benefits for 6		<u>GCF:</u> 50 M	<u>Other:</u>	Concept is being developed
Action		Lead		Timeline
Project Preparation Facility application		National Implementing Entity		2017

Project Title	Description	Accredited Entity		Submission timeframe
Designing a Climate Secure Future for Water in Antigua and Barbuda	Antigua and Barbuda is applying for funding to conduct the baseline studies for the water sector transformation programme. Antigua and Barbuda will augment the PPF request with support from the Government and other bilateral and multilateral sources.	National Implementing Entity (pending)		July 2017
Fund level strategic impacts:		Total financing:		Status
6, 7 with co-benefits for 1 and 3		<u>GCF:</u> 800,000	<u>Other:</u> Gov't of A&B	<i>PPF application under development</i>
Action		Lead		Timeline
Application for PPF		NIE (pending)		July 2017

Title	Description	Delivery Partner	Submission timeframe
<i>Realizing direct access climate financing in Antigua and Barbuda and the Eastern</i>	Antigua and Barbuda's second Readiness proposal will support the accreditation of a national direct access entity; support the further development and submission of the Enhanced Direct Access (EDA) funding proposal; host a sub-regional Structured Dialogue for the Organization of Eastern	<u>Department of Environment</u>	Initial submission in 2016.
		Total financing:	Status
		USD 620,250	Approved March 2017; currently under Implementation

<i>Caribbean (ATG-RS-002)</i>	Caribbean States (OECS); and conduct preliminary studies to inform project design.		
Action	Lead	Timeline	
Readiness (2) implementation	Department of Environment	March 2017 – 2018	

Table 6. Country Readiness programme pipeline			
Title	Description	Delivery Partner	Submission timeframe
<i>National Adaptation Planning in Antigua and Barbuda (NAP)</i>	The project consists of four outcomes: 1) Adaptation baselines via data collection and comprehensive climate change risk mapping. 2) Vulnerability Risk Assessment and Adaptation Plans for up to 3 Government agencies, 3 communities/NGOs and Private Sector entities using a learning by doing capacity building approach. 3) The National Adaptation Plan is developed and approved by Cabinet, and published in the Gazette. 4) A sustainable financing strategy is developed to facilitate NAP implementation via the SIRF Fund in the Government, community, and the Private Sector.	<u>Department of Environment</u>	Application submitted January 2017
		Total financing:	Status
		\$3 million	Application under review
Action	Lead	Timeline	
Revise and resubmit application	Department of Environment	June 2017	

Table 6. Country Readiness programme pipeline			
Title	Description	Delivery Partner	Submission timeframe
<i>Supporting financial institutions in Antigua and Barbuda and the Eastern Caribbean to access the GCF</i>	The NDA is partnering with UN Environment Finance Initiative to mobilize financial institutions to access the Green Climate Fund in Antigua and Barbuda and the Eastern Caribbean.	<u>United Nations Environment Programme</u>	August 2017
		Total financing:	Status
		\$600,000 over 30 months	Under development
Action	Lead	Timeline	
Issue No Objection letter	NDA	June 2017	
Submit Readiness proposal	UN Environment Programme	August 2017	

Table 7. Accreditation pipeline				
Entity Name	Type	Action	Lead	Timeline

Department of the Environment	Government of Antigua and Barbuda	<u>Continue to provide information to the GCF Secretariat and the Accreditation Panel</u>	Department of the Environment	<i>Submitted fast-track Accreditation application in 2016; anticipate accreditation in 2017.</i>
Organization of Eastern Caribbean States (OECS) Commission	Intergovernmental	<u>Submit nomination letter for Direct Access accreditation (March 2017)</u> <u>Facilitate a sub-regional Structured Dialogue for the Eastern Caribbean (April 2017)</u> <u>Develop a Regional Programme for the OECS</u>	OECS Commission	<i>Submit application for accreditation in 2017</i>

3. Monitoring and evaluation

- *How will new developments related to economic circumstances, new information on adaptation and mitigation, new information on changing viability or costs of various options inform updates in the country programme?*
- *Please outline a practical schedule of periodic reviews/evaluations to effectively monitor progress and adjust course as necessary?*
- *Specify which parameters of the country programme will likely require updates and what will be the frequency for updating the country programmes*

The DOE has a fully staffed Data Management Unit (DMU) for monitoring and evaluation, which consists of permanent staff of the DOE as well as long- and short-term consultants. This unit monitors GHG emissions, land uses change and pollution. The Unit of the DOE will prepare a complete program for M&E plan for each project. The aim of the M&E framework is for reporting to the Cabinet, the TAC and the PMC; as well as to the GCF and ultimately to the stocktaking for the Paris Agreement. The M&E plan will ensure that the list of indicators for the program takes into consideration the requirements of the transparency commitments of the Paris Agreement, including financial commitments.

The DMU will use the M&E of the country program as an opportunity to track implementation towards the Sustainable Development Goals (SDGs). The DMU does not have the capacity to track financial indicators and therefore the program will hire the necessary consultants and project teams to assist in data gaps.

The DMU will track the program indicators as agreed in the Funded Activity Agreement (FAA) signed with the GCF, as well as the indicators to assist the Department of Environment with its annual Accreditation Entity reporting and its commitments within the Accreditation Master Agreement (AMA) with the GCF. Project risks including financial viability will be track throughout the implementation and evaluation phases of the project, and where possible will be streamlined into the national development indices.

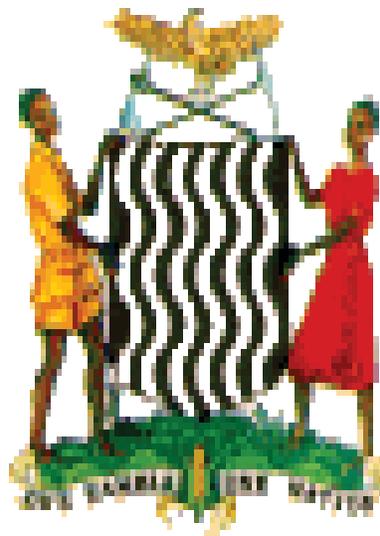
National reporting requirements include reporting to the Ministry of Finance and the Parliament on all Government expenditures. In addition, the M&E program requires monthly reports to the Ministry of Finance (both technical and financial); Quarterly reports to the GCF and/or AEs, annual technical reports, and biennial independent evaluations. There may be ad hoc reports that investigate specific technical and social factors, such as environment and social management systems. The projects and the beneficiaries must also produce Environmental Management Systems reports, including GHG, once the project is completed.



The current country program as presented here is a 5 to 7-year outlook, and the program will be adjusted as projects are developed and implemented. The change management process will be guided by the outputs of the program results framework. Changes in the program will undergo consultations similar to that of the initial development of the program.



Zambia





REPUBLIC OF ZAMBIA

MINISTRY OF NATIONAL DEVELOPMENT PLANNING

P.O Box 30147
Lusaka -Zambia

NDA/6/7/1

16th March, 2017

Mr. Howard Bamsey
Executive Director
Green Climate Fund (GCF)
Songdo, Incheon
SOUTH KOREA.

RE: SUBMISSION OF ZAMBIA'S COUNTRY PROGRAMME TEMPLATE

The above subject matter refers.

Please find attached a comprehensive template report outlining Zambia's Country Programme and GCF engagement. Please note that I am aware that the template will be accessible as a public document. I also am aware that the report may be used to showcase Zambia as an example for other countries and stakeholders.

A handwritten signature in blue ink, appearing to read 'Chola J. Chabala'.

Chola J. Chabala (Mr.)
National Focal Point Person
Permanent Secretary - DPA

MINISTRY OF DEVELOPMENT PLANNING



1. Country Profile

Geographical location	Southern Africa
Land area	752,614SQ KM
Population	15 Million
Types of climate	Tropical
GHG emissions profile	1.5%
Key emitter sectors	Mining
Key climate risks	Floods and drought
Vulnerable sectors	Agriculture and Infrastructure
NDA/FP	Mr. Chola Chabala
National/Regional AEs	DBSA, PTA
International AEs	UNEP, UNDP, KFW, World Bank,
Potential AEs nominated	Zambia National Commercial Bank (Zanaco), Development Bank of Zambia (DBZ) and Ministry of Finance

1.1 Climate change profile

Over the past 30-year temperature trends indicate a steady increase. This is projected to continue increasing in the future. Frequency of seasons with rainfall deficits has increased over the past 30 years especially over the southern and eastern half of Zambia.

The major Climate drivers over Zambia include Inter-Tropical Convergence Zone (ITCZ), Congo Air Boundary (CAB), and extra-tropical troughs. All these phenomena are significantly influenced by the El Nino and La Nina conditions. The impacts include frequent droughts, floods and high temperatures. Major sectors impacted include Agriculture, Water, Energy and Health. Rural populations practice rain fed agriculture and the all country is dependent on hydropower for all socio-economic sectors.

Climate change in Zambia will entail increased frequency and severity of droughts and floods (disasters) that will negatively retard economic growth as Zambia's economy is heavily natural resources, which are highly sensitive to changes in weather and climatic conditions. This will negatively impact hydropower and agriculture production hence derailing economic growth in all sectors.

Emission in Zambia majorly comes from mining and the Agriculture- Forestry-Landuse (AFOLU) sectors.



1.2 Development profile

Zambia's economic growth in the last five years has been robust and averaged above 5 percent. Economic growth has been aided by growth in the construction, agriculture, mining transport and communications, and the tourism sectors. Nonetheless, the persistent slowdown in the global economy, low commodity prices and some domestic challenges weighed down growth from a high of 7.6 percent in 2012 to 2.9 percent in 2015. Preliminary estimates indicate that growth in 2016 has shown some recovery to around 3.4 percent.

As regards to other macroeconomic fundamental, such inflation, exchange rate, and external sector position remain relatively positive in the last five years. Inflation for instance was contained within single digit levels averaging 8.7 percent between 2011-2014. Inflation however sharply increased in 2015 before returning to single digit level of 7.5 percent in 2016. In line with Government policy for an expansionary fiscal policy to support infrastructure development, the budget deficit urged upwards from 2.4 percent of GDP in 2011 to 9.4 percent of GDP in 2015 then fell to 5.7 in 2016.

Zambia's GNI per capita in the last five years averaged US3, 600. Zambia is among the countries in Sub Saharan African with relatively high GNI per capita. **GDP per capita** has been increasing in the last five years averaging about US1, 500. In 2016 GDP per capital has however, been projected to be lower (see table 1). Nonetheless the **Human Development Index** have remained almost at the same level over the last five years, this is despite some improvement in in selected indicators such as education and life expectancy.

Domestic credit levels in the last has been relatively high, however recorded a decline in 2016. This was on account tight monetary stance by government to curb inflationary pressures. As a result high lending rates were prohibitive for private sector financing.

Ease of Doing Business in Zambia averaged 90 from 2011 until 2016, highest of 98.00 in 2016 and a record low of 83.00 in 2013. Zambia is ranked 98 among 190 economies in the ease of doing business, and has deteriorated to 98 in 2016 from 84 in 2011. Notwithstanding, the deterioration in ease of doing business, **foreign direct investment** have increased over the last five years from 5.5% of GDP to 13.6% of GDP . This has been aided by favourable macroeconomic environment despite external shocks.

The overall head count poverty is 54.4 percent. Poverty in Zambia is mainly a rural phenomenon at above 70% compared to less than 30% in urban areas. The main economic activity in the rural areas is subsistence agriculture which mainly rain fed. The table below highlights the performance of key selected indicators.

	2011	2012	2013	2014	2015	2016*
Growth rate	5.6	7.6	5.1	4.7	2.9	3.4
GDP(K'Million)	114,033	131,274	151,331	167,053	183,381	213,139
GDP(US\$ Million)	23,458	24,349	29,586	27,146	21,250	20,673
GDP per capital (US\$)	1,624	1,803	1,883	1,738	1,096	1,298
GNI/capita PPP	3,384	3,630	3,640	3,734	3,660	3,600
HDI	0.565	0.576	0.580	0.586	0.586	0.586
Population growth rate	2.8	2.8	2.9	2.9	3.0	3.0
Domestic credit rate growth	30.2	38.8	14.22	14.1	20.9	(10.4)
FDI as % GDP	5.5	8.1	10.0	7.8	13.6	
Ease of doing business	84	90	83	91	94	98

*Projection



DEVELOPMENT PROSPECTS

a) Macro-economic and fiscal circumstances and poverty reduction strategies

The macroeconomic strategy in the medium to long term aims addressing domestic challenges such as vulnerability to external shocks and climate change effects. Key to this is achieving economic transformation for improved livelihood and creation of decent, gainful and productive employment especially for the youthful population. This will be underpinned by positive, sustained and resilient growth, and fiscal consolidation that supports macroeconomic stability, while improving the country's competitiveness.

The fundamental niche for Fiscal strategies is to ensure restoration, prudent and sustainable fiscus. The key strategies will be to restore budget credibility, transparency and ensure policy consistence. This will be underpinned by continued fiscal consolidation both on the revenue and expenditure side to provide supportive environment to unlock development bottlenecks and stimulate growth.

In an effort to reduce poverty government strategies anchored on the national development plan and the economic recovery plan. Key to this is the focus on the development of a sustainable, diversified and competitive agriculture sector where the majority of the poor are. Emphasis will be placed on crop diversification to encourage production high value cash crop that resilient to climate change and will be supported by the full migration to e-voucher system¹, development of irrigation schemes while scaling up sustainable utilization of wetlands and improve provision of extension services through ICT. Additionally scaling up livestock production through artificial insemination and animal disease control. Promotion of the fisheries sector will be cardinal to stimulate growth through, provision of fingerlings and its associated infrastructure and enhance fish feeding programs and storage.

b) Low emission and clean energy policies/ strategies

The promotion of low carbon development pathways that mitigate greenhouse gas (GHG) emissions and promote climate-resiliency in the most vulnerable sectors of the economy is priority for Zambia. This is the reason several plans and policies such as National Climate Change policy emphasize integration of economic development programmes such as forestry, energy and agriculture with climate change as priority.

One of the ways in which Zambia is promoting green growth is through the use of environmentally friendly sources of energy such as hydroelectric, geothermal, solar, wind, biomass, and biofuels.

Environmentally related tax revenue is also another means to promote green growth. Environmentally related tax revenues are expressed in percentage of GDP. Environmentally related taxes include energy products for transport purposes (petrol and diesel) and for stationary purposes (fossil fuels and electricity); motor vehicles and transport (one-off import or sales

¹ E-voucher provides beneficiaries a wider choice of inputs (rather than just maize seed and fertilizer) so as to promote production of other crops such as cassava, cashew nuts and edible oil seeds.



taxes, recurrent taxes on registration or road use and other transport taxes); waste management (final disposal, packaging and other waste-related product taxes); ozone-depleting substances and other taxes.

Zambia has also cooperated with various stakeholders such as the European Union and the United Nations to promote clean energy and green growth. The EU-UNDP Low Emission Capacity Building Programme (LECBP) was launched as part of a joint collaboration between the European Union (EU - European Commission and Member States) and the United National Development Programme (UNDP). Efforts are also focused on reducing the demand for charcoal by providing alternative fuel sources and fuel-efficient technologies like gel fuel and cook stoves

c) Infrastructure investment policies (e.g. related to urban development and transport)

Infrastructure serves a central delivery mechanism in achieving sustainable economic development and in the generation of quality social-economic development in the country. Infrastructure still remains a major challenge to growth, economic diversification and human development in Zambia. Further, Zambia is a land linked country centrally positioned between eight (8) neighbouring countries who are increasingly trading amongst each other to optimize economic benefits. Furthermore, major import and export trade corridors to facilitate economic integration among Southern Africa Development Community (SADC) and Common Market of Eastern and Southern Africa (COMESA) member countries pass through Zambia. As such, Infrastructure development, is one of the Government's priority areas, and is upheld in the National Development Plans and the National Vision 2030.

Transport infrastructure covers: roads and bridges, railways, airports and aerodromes and maritime and inland waterways. The state of transport infrastructure, however, remains inadequate to sustain and match the desired levels of growth due to weak structural and management capacity resulting in over commitments, high cost of construction and low investment. Government has embarked on a program to improve the infrastructure at all the international airports. This is being done in collaboration with private sector participation. The developments include the runways, terminals and auxiliary facilities in and around the airports such as hotels, shopping malls, Conference facilities etc.

The Government of Zambia embarked on the Link Zambia 8,000 project (Accelerated National Roads Construction Programme) saw the rehabilitation and construction of the road network. The aim was to construct an efficient road network and international highways linking Zambia to South Africa, Zimbabwe, Mozambique, Malawi, Tanzania, the Democratic Republic of Congo and Namibia.

d) Adaptation and risk management policies/strategies

Zambia has various policies that deal with adaptation and risk management, these include among others the national development plans, National Disaster Management Policy, the National Agricultural Policy and the National Irrigation Plan. Disaster risk management and Climate change adaptation are mainly implemented by different government agency established primarily for this purpose. The emphasis has been to have an integrated system for adaptation and risk management across the sectors.



1.3 Climate change policy response

In view of the climate change challenges that the country has been facing in the recent past, Zambia has developed various climate change-related policies, strategies, projects and programs in response to climate change impacts. These include: the National Policy on Environment (NPE, 2007); the National Climate Change Response Strategy (NCCRS, 2010); National Forestry Policy of 2014; National Energy Policy of 2008, The National Agriculture Policy of 2014 and Transport Policy of 2002; National Strategy for Reducing Emissions from Deforestation and Forest Degradation (REDD+, 2015); Second National Biodiversity Strategy and Action Plan (NBSAP2); the National Adaptation Plan of Action on Climate Change (NAPA, 2007); Technology Needs Assessment (TNA, 2013); Nationally Appropriate Mitigation Actions (NAMAs, 2014); Second National Communication (SNC, 2015). The National Climate Change Policy (2016) has also now been developed and launched.

These policies, strategies, programmes and projects are aligned with the Revised Sixth National Development Plan (RSDNP) and the Vision 2030 which promotes “A prosperous middle income country by 2030”, both of which support development of a low carbon and climate-resilient development pathway. In addition, Government ratified the Kyoto Protocol in 2006 among other things to facilitate implementation of the Clean Development Mechanism. The country is also in the process of developing its National Adaptation Plan (NAP) for long term adaptation planning and mainstreaming of climate change into national development planning process. Zambia also adopted a National Climate Change Policy in 2016 and submitted her INDC in 2015. The development of the Seventh National Development Plan (7NDP, 2017-2021) is also underway which will consider climate change issues

Table 1: Summary of INDC/NDC targets		Estimated resources required USD \$
Conditional	<p>Mitigation: Estimated total emission reduction of 38,000GgCO₂eq which translates to 47% (internationally supported efforts) against 2010 as a base year;</p> <p>Three programmes are targeted: sustainable forest management; linking sustainable agriculture; and renewable energy and enhancing energy efficiency</p> <p>Adaptation: Three programmes are targeted: strategic productive systems (agriculture, forests, wildlife and water); adaptation of strategic infrastructure and health systems; and enhanced capacity building, research, technology transfer and finance</p>	<p>Total USD 50 B across mitigation and adaptation.</p> <p>USD 35 billion: from external sources</p> <p>USD 15 B: from Domestic sources</p>

2. Country Agenda and GCF Engagement

2.1 Institutional arrangements

The National Planning Department under the Ministry of Development Planning is Zambia’s National Designated Authority (NDA). The NDA is operationalized through the NDA Project Office headed by a National Coordinator who reports to Director National Planning. The essence of establishing a project office was to establish an efficient and fairly independent office and



create balance between mainstreaming functions of the NDA into the Government but still provide the necessary identity and visibility of the NDA. In terms of operations, an NDA Technical Committee composed of all stakeholder institutions in climate change has been established. The main function of the Committee is to receive and assess project proposals to ensure they are within national priorities. Once, examined, the proposals are handed back to accredited entities and a letter of no objection is issued to the GCF if successful. In terms of financing, the NDA is partly financed through a capacity building grant agreement with the GCF. The Government of the Republic of Zambia finances the administrative costs. The personnel are seconded staff from Government as well as Private sector people.

In terms of the policy environment, Zambia now has a National Climate Change Policy. The golden rule in the policy is that an implementer should not be a coordinator. The policy spells at roles of coordination and implementation. Overall coordination is done by the Ministry of National Development Planning and coordination of implementation is done by the Ministry of Lands and Natural resources. Other institutions in charge of sectors such as agriculture, water, energy and the like play their respective roles in implementation.

Entity/Partner Name	Area/s of focus	Engagement in country	Efforts to strengthen engagement
UNDP	Agricultural livelihoods and food security	In-country presence. Annual work plan in consultation with Ministry of Agriculture and Meteorological Department. Base funding provided by UNDP partner with co-financing by government.	Mainstream GCF funding consideration into annual work plan.
World Bank	Livelihoods and community resilience	Program of Support to the Ministry of Development Planning	Restructuring and formalization of work plan and support to mainstream efforts in development planning process

3. Roles and contributions of key stakeholders

Stakeholder group	Date of consultation	Type or objective of consultation	Outcome
Cabinet	02/07/2017	Consideration of National Climate Change Policy	Approval of NCCP
Cabinet Office		Establishment of National Designated Authority (NDA)	National Planning Department nominated as NDA and Project Office established



Line Ministries		Pre-clearance of project proposals	Proposals tabled at NDA National Committee for approval
Private Sector/Banks		Adverts for expression of interest	Nomination as NIEs
United Nations/World Bank/ Other Partners		Accredited Entities	Submission of Proposals to the GCF
			Official submission of CP
GCF	On going	Capacity Building/Country Program Development/Readiness	Country Program approval

3.1 Identification of country priorities for the GCF

The Country's seventh plan is just being concluded and careful consideration has been given to mainstreaming climate change in the planning process. Ownership is instilled by giving the sectors to develop their own plans before consolidation. In terms of investment criteria, the NDA Committee criteria is select projects with high impact and are likely to have a high paradigm shift especially in areas of agriculture, livelihoods and early warning. The placement of the NDA in the National Planning Department which is also in charge of the SDG process has ensured sustainability in programs selected. GCF intervention has a number of advantages relative to other financiers. Firstly, not only is country ownership emphasized but it is practiced by having NDA's issue letters of no objection. This has ensured that proposals are driven by stakeholders at country level. Another advantage is the GCF use of country systems to engage countries. In terms of financing, Zambia uses the four tools that are also used by the GCF; loans, guarantees, equity and grants. Financing is both domestic and international. The national press and national meeting engagement have been used extensively to invite the private sector to the table. With the accreditation of NIEs which include a privately driven bank was deliberately done to encourage private sector engagement.

These policies, strategies, programmes and projects are aligned with the Revised Sixth National Development Plan (RSDNP) and the Vision 2030 which promotes "A prosperous middle income country by 2030", both of which support development of a low carbon and climate-resilient development pathway. The strategic focus of the plan include energy (mitigation), agriculture adaptation) and water (adaptation). The other sectors such as education, health (adaptation), skills development (crosscutting) and infrastructure development still remain key to Zambia's development. In the energy sector, the solar and hydro power projects will have a paradigm shift and potential for replication as they will double Zambia's power generation. The Batoka Gorge alone will be between 2000MW and 3000MW and the mini hydros are at 60MW combined. The other projects such as the Kalumbila development will revolutionalise the green-housing philosophy which will be demonstrated on an industrial scale to the Zambian construction sector, thereby triggering a potential building revolution that will be the required large-scale paradigm shift to changing Zambian construction standards. All the projects have a capacity building in the local industry which trigger knowledge and skills transfer through training programs and on-the-job training during the implementation.



3.2 Country Portfolio

Table 4: Country projects/programmes pipeline			
Project 1			
Project Title	Description	Accredited Entity	Submission timeframe
Strengthening Climate Resilience of Agricultural Livelihoods in Agro-ecological Zones I and II in Zambia	The project aims at (1) strengthening capacity of farmers to plan for climate risk (2) strengthening resilient agricultural production and diversification practices (for both food security and income generation), and (3) strengthening farmers' access to markets and commercialization of resilient agricultural commodities.	UNDP	March 2017
Fund level strategic impacts		Total financing:	Status
5, 6		<u>GCF:</u> \$47.0m	<u>Other:</u> \$1.7m FP Received, First Review Completed.
Action	Lead	Timeline	
Strengthening the water component	AE	February 2017	
Second Review Session	GCF		
Project 2			
Project Title	Description	Accredited Entity	Submission timeframe
Zambia - Strengthening Hydro-meteorological and Climate Services	The project aims at (1) Enhanced climate and disaster resilience capacity through strengthening of hydromet services, end user services, early warning, knowledge and advisory services to link national systems with regional and global counterparts (2) Strengthen the National Meteorological and Hydrological Services (3) Enhanced resilience and climate adaptation capacity, improved delivery of weather, climate and hydrological services and weather-dependent sectors, including timely, reliable forecasts leading to increased climate and disaster resilience, through trans-boundary collaboration on drought, severe weather and flood warnings, leading to enhanced climate and disaster preparedness and readiness	World Bank	
Fund level strategic impacts:		Total financing:	Status
		<u>GCF:</u>	<u>Other:</u> Concept Received
Action	Lead	Timeline	



Project 3			
Project Title	Description	Accredited Entity	Submission timeframe
Regional Liquidity Support Facility	The project aims at (1) Integrate the private sector in power production by encouraging Private Power Producers (PPPs) to partner with off takers like ZESCO, and (2) Facilitate a more sustainable financing approach by providing full cash collateral upon request of utilities and commercial banks	KfW	
Fund level strategic impacts		Total financing:	Status
		GCF:	Other:
Action		Lead	Timeline
Project 4			
Project Title	Description	Accredited Entity	Submission timeframe
An Adaptation Initiative for Bridging the Critical Power and Housing Deficit	The project aims at (1) delivery of climate friendly housing units and commercial buildings within Kalumbila township, northwestern Zambia, and (2) develop power generation comprising waste to energy for conversion to local landfill household refuse and solar for conversion of sunlight into electricity	None	
Fund level strategic impacts:		Total financing:	Status
		GCF: \$150m	Other: \$15.75m
Action		Lead	Timeline
Assign AE		NDA, GCF	
Project 5			
Project Title	Description	Accredited Entity	Submission timeframe
Livingstone Urban Water Supply, Sanitation and Energy Efficiency	Increase access to safe, adequate and reliable water supply and sanitation to Livingstone town while generating energy (biogas) from sludge	None	
Fund level strategic impacts:		Total financing:	Status
1,3,4,5,6,7,8		GCF: \$79m	Other: \$9.87m
Action		Lead	Timeline



Assign AE		NDA, GCF			
Project Title	Description	Accredited Entity		Submission timeframe	
Zambia Green Jobs Programme - Shift to low emission sustainable development pathways	The project aims at (1) Develop markets for sustainable buildings and affordable housing, renewable energy generation and access, water harvesting and small scale irrigation, and integrate waste management and recycling; (2) Facilitate policy research analysis and support for an enabling business environment; (3) Advance institutional strengthening and capacity development for the application of building standards, guidelines, codes and assessment tools (including rating systems for buildings, housing, technology and equipment); as well as the setup of a quality apprenticeship and technical vocational training system. (4) Bolster skills development, training and capacity building support for Small and Medium Enterprises to access finance and business development services they need and demand in order to grow and create jobs; as well as (5) Leverage transformative innovation, skills development and entrepreneurship with scalable demonstrations to foster public and commercial investments in sustainable buildings and affordable housing, renewable energy access and generation as well as integrated waste management	UNEP			
Fund level strategic impacts:		Total financing:		Status	
1,3,5,6,7		GCF: \$38.5m	Other: \$1.5m	CN reviewed by NDA	
Action	Lead	Timeline			
Develop FP	AE				
Project Title	Description	Accredited Entity		Submission timeframe	
Water, Food, Forestry and Jobs Programme	(1) Strengthened government and civil society institutions for the implementation of policy, regulatory and legal framework for water, forestry and energy sectors (2) Increased carbon sinks, water and food security, more and better jobs and livelihoods (3) Enhanced energy security, SME development and job creation in rural communities	UNEP, FAO			
Fund level strategic impacts:		Total financing:		Status	
1,4,5,6,8		GCF: \$46.8m	Other: \$3.2m	CN reviewed by NDA	



	(4) Increased SME awareness on reuse, recycling and usage of none wasteful extraction processes			
Action		Lead		Timeline
Develop FP		AE		
Project Title	Description	Accredited Entity		Submission timeframe
Zambia Mini Hydro Project	The project aims at developing five MiniHydro named (1) Kapamba Fall (2) Mumburuma Falls (3) Namundela Falls (4) Kalepela Falls and (5) Batoka. Their net head for the plants range from 16.2m–28m. Their designed discharge range from 8.82–59.2m ³ /s. They are designed to be run-off-river plants. The main works include development of weirs, diversion canals, intake forebays, penstocks, power houses, and switch yards.	None		
Fund level strategic impacts		Total financing:		Status
1		GCF:	Other:	CN being developed
Action		Lead		Timeline
Assign AE		NDA, GCF		

Table 5: Country Project Preparation pipeline				
Project Title	Description	Accredited Entity		Submission timeframe
Livingstone Urban Water Supply, Sanitation and Energy Efficiency		UNDP		
Fund level strategic impacts		Total financing:		Status
		GCF:	Other:	
Action		Lead		Timeline
CN Development to start		AE		

Table 6. Country Readiness programme pipeline			
Title	Description	Delivery Partner	Submission timeframe
			December 2017



Readiness for		Total financing:	Status
<p>NDA Strengthening and Strategic Frameworks</p>	<p>The proposed activities are establishing and strengthening Zambia's National Designated Authority, activity area 1, and reviewing strategic frameworks, including the preparations of the country programmes for national engagement with the Fund, building on existing strategies and plans, activity area 2. The National Designated Authority will hire experienced consultants with climate finance knowledge for advice and support in undertaking the following</p> <p>1) <i>Activity area 1:</i></p> <p>(a) Baseline survey on climate change issues: prepare a summary of all existing climate change projects and programmes, maintain an overview of adaptation and mitigation projects and programmes in the country, develop baseline knowledge so that resources from the Green Climate Fund are targeted at relevant projects and programmes in Zambia (b) National workshops: build the knowledge and capacity of the National Designated Authority staff to enable them assess projects and programmes for the Green Climate Fund to be in conformity with the country's national priorities, strategies and plans, and with the country's laws and regulations (c) Development of a website (d) Development of a monitoring, evaluation and reporting plan: monitor and evaluate in accordance with the Fund's guidelines (e) Translation of key operational procedures, and (f) production of television and radio: develop and support the execution of a programme that will provide a platform to disseminate information about the Green Climate Fund and share experiences at national, provincial and district levels.</p>	<p>\$300,000</p>	<p>\$60,000 disbursed, Implementation stage</p>



	<p>2) <i>Activity area 2:</i> (a) Review of strategies on climate change, and (b) Development of a Country Programme. These activities will be undertaken between 14th March 2016 and 31th December 2017 at USD300,000</p>		
Action	Lead	Timeline	
Include the NAP result area to the readiness programme	NDA	June 2017	
Table 6. Country Readiness programme pipeline			
Title	Description	Delivery Partner	Submission timeframe
Readiness for NDA Strengthening and Strategic Frameworks	<p>The proposed activities are establishing and strengthening Zambia's National Designated Authority, activity area 1, and reviewing strategic frameworks, including the preparations of the country programmes for national engagement with the Fund, building on existing strategies and plans, activity area 2. The National Designated Authority will hire experienced consultants with climate finance knowledge for advice and support in undertaking the following</p> <p>1) <i>Activity area 1:</i> (a) Baseline survey on climate change issues: prepare a summary of all existing climate change projects and programmes, maintain an overview of adaptation and mitigation projects and programmes in the country, develop baseline knowledge so that resources from the Green Climate Fund are targeted at relevant projects and programmes in Zambia (b) National workshops: build the knowledge and capacity of the National Designated Authority staff to enable them assess projects and programmes for the Green Climate Fund to be in conformity with the country's national priorities, strategies and plans, and with the country's laws and regulations (c) Development of a website (d)</p>		December 2017
		Total financing:	Status
		\$300,000	\$60,000 disbursed, Implementation stage



	<p>Development of a monitoring, evaluation and reporting plan: monitor and evaluate in accordance with the Fund's guidelines (e) Translation of key operational procedures, and (f) production of television and radio: develop and support the execution of a programme that will provide a platform to disseminate information about the Green Climate Fund and share experiences at national, provincial and district levels.</p> <p>2) <i>Activity area 2:</i> (a) Review of strategies on climate change, and (b) Development of a Country Programme.</p> <p>These activities will be undertaken between 14th March 2016 and 31th December 2017 at USD300,000</p>		
Action	Lead	Timeline	
Include the NAP result area to the readiness programme	NDA	June 2017	

Entity Name	Type	Action	Lead	Timeline
Ministry of Finance	Government	Start process of accreditation	Ministry of Finance	March
Development Bank of Zambia	Quasi-Government	Start process of accreditation	Development Bank of Zambia	March
Zambia National Commercial Bank	Quasi-Government	Start process of accreditation	Zambia National Commercial Bank	March

4. Monitoring and evaluation

To effectively monitor and evaluate the implementation of the National Policy on Climate Change, a comprehensive M&E framework will be developed. The framework will emphasize on regular progress monitoring and periodic in-depth



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evaluation to ensure that expected outputs, outcomes and impacts are achieved. The Ministry responsible for National Development Planning will provide overall oversight on Monitoring and Evaluation of Sectoral Plans and Programmes on climate change. The Ministry responsible for Environment and Natural Resources through the Department will facilitate the Monitoring and Evaluation of Climate Change implementation Plans and projects. The Policy will be reviewed periodically to take on board new and emerging issues related to climate change.